Amendments to the Specification:

Please replace the paragraph on page 7 lines 19- 33 with the following amended paragraph:

Referring now to the drawing, there is shown in Figure 2 a broken away perspective view of a conventional surface mount resistor 1. Such resistors, often called chip resistors, are substantially formed as parallelepipeds, and have generally U-shaped end caps 2, 4. The end caps 2, 4 are typically manufactured to industry-standard specifications. The noted dimensions t for thickness or height as well as other dimensions d, W, and c are controlled during the resistor manufacturing process to insure mounting of the chip resistor on a printed circuit board is facilitated. The lower face of each end [connector] cap 2, 4, having the dimension d, registers with associated pads (not shown) on a printed circuit board to which they resistor is ultimately mounted. The conventional surface mount resistor includes a protective coating 5a, ceramic substrate 5b, resistive film 5c, inner electrode 5d, nickel plating 5e, solder plating 5f, nickel plating 5f, termination (outer) 5g, termination (barrier) 5h, and termination (inner) 5i. Wave soldering procedures secure the resistor to the printed circuit board.

Please replace the paragraph on page 8 lines 1- 13 with the following amended paragraph:

Figure 1 illustrates the relationship between [three such resistors 14, 18, 26] first, third and second surface mounted resistors respectively symbolized schematically by end caps 14a and 14b, 18a and 18b, and 26a and 26b. and protective traces 22, 24 in accordance with the present invention. More specifically, a first conductor 12 is part of an electronic circuit, such as an

electronic security system and is also connected to external circuitry (not shown). It is this first conductor 12 that experiences transients and which is also connected to a first surface mount resistor having respective end caps 14a and 14b. A second conductor 16 connects the first surface mount resistor [14] to a second surface mount resistor having end caps 18a and 18b. A third conductor 20 connects the second surface mount resistor [18] to the internal circuitry of a given system. In addition, a third surface mount resistor having end caps 26a and 26b connects to external circuitry via conductor 28 and internal circuitry via conductor. The system/internal circuitry may be the circuitry of an alarm system located on the same circuit board.

Please replace the paragraph on page 8 lines 15- 33 with the following amended paragraph:

The apparatus and method in accordance with present invention avoids the above-described problems by providing a different path for the transient arc. More specifically, as shown in Figure 1, a first metal trace 24 is placed under the first surface mounted resistor having end caps 14a, 14b [14] and a third resistor [26] having end caps 26a, 26b. A second metal trace 22 is placed under the second surface mounted resistor [18] having end caps 18a, 18b. Each metal trace is preferably manufactured of the same conductive material as that used in the rest of the printed circuit board. Typically this will be copper although aluminum and other conductive materials may be used. Each metal trace 22, 24 is connected to ground or may be at some potential. It is only essential that the trace 22, 24 as well as connections to the trace 22, 24 be dimensioned and configured to enable the respective trace to dissipate transients without damage to any part of the circuit. In a preferred embodiment each trace 22, 24 is disposed approximately .01 inches from the pad of the resistor. This dimension is indicated as "X" in Figure 1 (4 instances). Accordingly, a transient will arc from the one of the end caps 14a, 14b on the first surface mounted resistor [14] to the

trace 24. It is imperative that the dimension X be greater than the dimension t (the height of the end cap 14a, 14b and essentially the height of the [chip] first surface mounted resistor 14). To provide an adequate margin of safety is preferable that the dimension X be at least one half the dimension t.

Please replace the paragraph on page 9 lines 1- 11 with the following amended paragraph:

Similarly a transient at the [second] third surface mounted resistor [18] will arc to the trace 22 in the manner described above. In each case arcing from the lower faces of the first and third resistors [14, 18] respectively to the traces 22, 24 will occur because the distance is shorter than the distance from the film on top of the resistor body to the ground trace. Ordinarily, the pad or lower face of the respective surface mounted resistors [22, 24] will be planar and the respective traces 22, 24 will also be planar. The precise spacing between the trace and the resistor will vary for different applications. Considerations to be considered in determining the spacing include the physical characteristics of the resistor, the physical characteristics of the trace, and the nature of the transients typically encountered.

Please replace the paragraph on page 9 line 26 through page 10 line 4 with the following amended paragraph:

The [chip] first and third surface mounted resistors [14, 18 a] are respectively protected by traces 24, 22. The [third chip] second surface mounted resistor [26] is protected by the trace 24 which is the same trace that protects the first surface mounted resistor [14]. An additional consideration in the layout occurs in this case. More specifically, the dimension Y (the distance between adjacent end caps on the first surface mounted resistor 14 and the second surface mounted resistor 26) must be even greater than the dimension X. More specifically, it is

important that the dimension Y be greater than X and is preferable that they dimension Y be no less than three times the dimension t. Because the transient at the first resistor 14 and the transient at the third resistor 26 may instantaneously be respectively positive and negative the risk of damage (in the risk of an arc from one end cap to another end cap) as the result of the transients is much greater than the case where only one transient is present or even when to transients are both positive or both negative.

Please replace the paragraph on page 10 lines 6-.13 with the following amended paragraph:

In one embodiment of the invention each of the [three chip resistors] <u>first, second, and third surface mounted resistors</u> [22, 24, 26] is a three quarter watt 2H/2010. The dimension t for this component is .024 inch. In a preferred embodiment the dimension X is approximately .010 inch. In a preferred embodiment of the dimension Y is at least .080 inch. It will thus be seen that a transient will be diverted from the body of the component to elsewhere that will not cause damage. In the case of alarm system is possible to use surface mount components for zone inputs on alarm systems without the addition of expensive transient absorbers.